REMARKS

In response to the non-final office action of April 6, 2007, the applicant asks that all claims be allowed in view of the amendment to the claims and the following remarks.

Claims 1-20 are now pending, of which claims 1, 10, and 15 are independent. Claims 1, 3, 4, 10, 12-15, 17, and 18 have been amended, and claims 19 and 20 have been added. Support for these amendments and new claims may be found throughout the application, for example, at page 2, lines 13-19 and page 3, line 19 through page 6, line 10 referring to Figs. 1 and 2. No new matter has been introduced.

Claims 10-14 have been rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Claim 10 has been amended. The applicant submits that the amendments to claim 10 address all of issues the examiner has raised. Therefore, the applicant respectfully requests reconsideration and withdrawal of the rejection.

Claims 1-18 have been rejected as being anticipated by Burrows (U.S. Patent Application No. 2003/0126590). The applicant requests reconsideration and withdrawal of this rejection because Burrows does not describe or suggest the subject matter of amended independent claims 1, 10, and 15, as described below.

For example, as amended, independent claim 1 recites a computer program product, tangibly embodied in an information carrier, comprising instructions operable to, *inter alia*, create, at compile time, data type definitions for referenced data types included in a compiled program and known at compile time and execute, at runtime, instructions to create a runtime data type having a compound structure. The runtime data type is created by creating a runtime data type definition based on the compound structure of referenced data types and the data type definitions for the referenced data types created at compile time and a data object having the runtime data type is created based on the runtime data type definition.

Burrows does not describe or suggest creating a runtime data type definition based on a compound structure of referenced data types and data type definitions for the referenced data types created at compile time and creating a data object having the runtime data type based on the runtime data type definition, as recited in amended independent claim 1.

In contrast, Burrows describes a system configured to perform data-type checking for variable and structure declarations in a program by creating shadow arrays that correspond to memory locations and include data type information for the corresponding memory locations. See Burrows at paragraph [0023]. For example, as shown in Fig. 6A, source code 602, written in the C programming language, defines a structure data type "s" that includes a twelve character array "a" and a character pointer "str." See Burrows at paragraph [0055]. The source code 602 also includes a statement declaring a variable "t" having the type defined by structure "s." See id. In performing the operations defined by the source code 602, the system of Burrows, as shown in Fig. 7, allocates memory locations for the variable "t" and stores data type values for the elements of variable "t" in a shadow array 704 corresponding to the memory locations allocated for the variable "t." See Burrows at paragraph [0061]. When executing instructions using the variable "t," the system of Burrows accesses the shadow array 704 corresponding to the memory locations allocated for the variable "t" to perform data type checking. See Burrows at paragraphs [0063] and [0064]. In particular, when the system of Burrows executes the instruction "t.a[12] = 3" included in source code 602, the system accesses a location in the shadow array 704 corresponding to the memory location associated with "t.a[12]." See id. Because the memory location associated with "t.a[12]" is outside of the memory locations allocated for the array "a" and corresponds to the character pointer "str," the system of Burrows accesses the data type information included in the shadow array 704 for the character pointer "str" (e.g., the data type "pointer") and identifies an error because the instruction is attempting to store an integer value ("3") in a memory location associated with the data type "pointer." See id.

Accordingly, the system of Burrows performs data-type checking for variables declared in a program that have a data type defined by the program. The system of Burrows, however, does not create a runtime data type definition based on a compound structure of referenced data types and data type definitions for the referenced data types created at compile time. Rather, the data type definitions in the system of Burrows are compile-time data type definitions directly defined in the program and any variables created by the program are based on the compile-time data type definitions. Therefore, Burrows fails to describe or suggest creating a runtime data type definition based on a compound structure of referenced data types and data type definitions

for the referenced data types created at compile time and creating a data object having the runtime data type based on the runtime data type definition, as recited in amended independent claim 1.

For at least these reasons, the applicant requests reconsideration and withdrawal of the rejection of claim 1 and its dependent claims 2-9.

Independent claims 10 and 15, although different in scope from claim 1, recite features similar to those discussed above with respect to claim 1, and do so in the context of a computer system and a method. Accordingly, for the reasons discussed above with respect to claim 1, the applicant requests reconsideration and withdrawal of the rejection of independent claims 10 and 15 and their dependent claims 11-14 and 16-18.

New claims 19 and 20 each depend directly from independent claim 1. At least for the reason of that dependency and the reasons noted above with respect to independent claim 1, the applicant submits that claims 19 and 20 are allowable.

By responding in the foregoing remarks only to particular positions taken by the examiner, the applicant does not acquiesce with other positions that have not been explicitly addressed. In addition, the applicant's selecting some particular arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist. Finally, the applicant's decision to amend or cancel any claim should not be understood as implying that the applicant agrees with any positions taken by the examiner with respect to that claim or other claims.

The applicant submits that all claims are in condition for allowance.

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Respectfully submitted,

Date: 7/6/07

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